2K Tinted Midcoat Repair Process

GENERAL

DESCRIPTION
2K tinted midcoats: Permasolid® 2K Diamond Midcoat, MC 0001, Permasolid® 2K Transparent Red Midcoat, MC 0002, or Permasolid® 2K Transparent Blue Midcoat, MC 0003 will be needed in combination with Permasolid® Low VOC Clear Coat 8096 or Permasolid® HS Clear Coat 8035, used as an untinted blending clear, to repair various special OEM colors. These tinted midcoats can be used over either Permacron® Base Coat Series 293/295 or Permahyd® Hi-TEC 480.

The products referenced herein may not be sold in your market. Please consult your distributor for product availability.

MIXING

COMPONENTS
Refer to Mix Tables below.

MIX RATIO

PERMASOLID HS HARDENERS
Refer to Mix Tables below

PERMASOLID VHS HARDENERS
Refer to Mix Tables below.

PERMASOLID LOW VOC HARDENERS

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 0001, MC 0002, or</td>
<td>2</td>
</tr>
<tr>
<td>MC 0003</td>
<td></td>
</tr>
<tr>
<td>3192 / 3194 / 3196</td>
<td>1</td>
</tr>
<tr>
<td>3394 / 3392</td>
<td>+10-15%</td>
</tr>
</tbody>
</table>

ELASTIC TINTED MIDCOAT - PERMASOLID LOW VOC HARDENERS

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC 0001, MC</td>
<td>2</td>
</tr>
<tr>
<td>0002, or MC 0003</td>
<td></td>
</tr>
<tr>
<td>9050</td>
<td>+15%</td>
</tr>
<tr>
<td>3192 / 3194 / 3196</td>
<td>1</td>
</tr>
<tr>
<td>3394 / 3392</td>
<td>+10-15%</td>
</tr>
</tbody>
</table>

PERMASOLID HS HARDENERS

Mixing Information for MC 0001, MC 0002, MC 0003, or 8096 with HS Hardeners

<table>
<thead>
<tr>
<th>Component</th>
<th>Pint</th>
<th>Pint</th>
<th>Pint</th>
<th>Quart</th>
<th>Quart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5% Reduction</td>
<td>10% Reduction</td>
<td>15% Reduction</td>
<td>5% Reduction</td>
<td>10% Reduction</td>
</tr>
<tr>
<td>MC 0001, MC 0002, or MC 0003</td>
<td>289.6</td>
<td>276.5</td>
<td>264.5</td>
<td>579.3</td>
<td>553.0</td>
</tr>
<tr>
<td>3307, 3309, 3310, 3315, 3320, or 3325</td>
<td>182.9</td>
<td>174.6</td>
<td>167.0</td>
<td>365.8</td>
<td>349.2</td>
</tr>
<tr>
<td>3363, 3365, or 8580</td>
<td>20.3</td>
<td>38.8</td>
<td>55.7</td>
<td>40.7</td>
<td>77.6</td>
</tr>
</tbody>
</table>
Mixing Information for Elastic MC 0001, MC 0002, MC 0003, or 8096 with HS Hardeners

<table>
<thead>
<tr>
<th>Component</th>
<th>Pint</th>
<th>Pint</th>
<th>Pint</th>
<th>Quart</th>
<th>Quart</th>
<th>Quart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5% Reduction</td>
<td>10% Reduction</td>
<td>15% Reduction</td>
<td>5% Reduction</td>
<td>10% Reduction</td>
<td>15% Reduction</td>
</tr>
<tr>
<td>MC 0001, MC 0002, MC 0003, or 8096</td>
<td>251.9</td>
<td>240.4</td>
<td>230.0</td>
<td>503.7</td>
<td>480.8</td>
<td>459.9</td>
</tr>
<tr>
<td>9050 (15%)</td>
<td>38.8</td>
<td>37.1</td>
<td>35.5</td>
<td>77.7</td>
<td>74.1</td>
<td>70.9</td>
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<td>3307, 3309, 3310, 3315, 3320, or 3325</td>
<td>182.9</td>
<td>174.6</td>
<td>167.0</td>
<td>365.8</td>
<td>349.2</td>
<td>334.0</td>
</tr>
<tr>
<td>3363, 3365, or 8580</td>
<td>20.3</td>
<td>38.8</td>
<td>55.7</td>
<td>40.7</td>
<td>77.6</td>
<td>111.4</td>
</tr>
</tbody>
</table>

PERMASOLID VHS HARDENERS

Mixing Information for MC 0001, MC 0002, MC 0003, or 8096 with VHS Hardeners

<table>
<thead>
<tr>
<th>Component</th>
<th>Pint</th>
<th>Pint</th>
<th>Quart</th>
<th>Quart</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20% Reduction</td>
<td>25% Reduction</td>
<td>20% Reduction</td>
<td>25% Reduction</td>
</tr>
<tr>
<td>MC 0001, MC 0002, MC 0003, or 8096</td>
<td>301.7</td>
<td>289.6</td>
<td>603.4</td>
<td>579.3</td>
</tr>
<tr>
<td>3220, 3230, 3240, or 3245</td>
<td>120.8</td>
<td>116.0</td>
<td>241.6</td>
<td>232.0</td>
</tr>
<tr>
<td>3363, 3365, or 8580</td>
<td>71.2</td>
<td>85.5</td>
<td>142.5</td>
<td>171.0</td>
</tr>
</tbody>
</table>

Mixing Information for Elastic MC 0001, MC 0002, MC 0003, or 8096 with VHS Hardeners

<table>
<thead>
<tr>
<th>Component</th>
<th>Pint</th>
<th>Pint</th>
<th>Quartz</th>
<th>Quartz</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20% Reduction</td>
<td>25% Reduction</td>
<td>20% Reduction</td>
<td>25% Reduction</td>
</tr>
<tr>
<td>MC 0001, MC 0002, MC 0003, or 8096</td>
<td>262.4</td>
<td>251.9</td>
<td>524.7</td>
<td>503.7</td>
</tr>
<tr>
<td>9050 (15%)</td>
<td>40.5</td>
<td>38.8</td>
<td>80.9</td>
<td>77.7</td>
</tr>
<tr>
<td>3220, 3230, 3240, or 3245</td>
<td>120.8</td>
<td>116.0</td>
<td>241.6</td>
<td>232.0</td>
</tr>
<tr>
<td>3363, 3365, or 8580</td>
<td>71.2</td>
<td>85.5</td>
<td>142.5</td>
<td>171.0</td>
</tr>
</tbody>
</table>

APPLICATION VISCOSITY
15-16 seconds at 68°F/20°C, DIN 4

POT LIFE
Approximately 0.5-1 hour at 68°F/20°C when ready to spray
SPECIAL TIPS

1. 15% Permasolid® Elastic Additive 9050 can be added to both the Permasolid® tinted midcoat and the Permasolid® Low VOC Clear Coat 8096. Permasolid® Elastic Additive 9050 must be mixed with the tinted midcoat or untinted clear coat prior to the addition of hardener and reducer. Note: If Permasolid® Elastic Additive 9050 is added to the tinted midcoat, it should also be added in the same amount to the Permasolid® Low VOC Clear Coat 8096 and the final clear coat.

APPLICATION

SUBSTRATES
Permacron® Base Coat Series 293/295 (ground coat)
(See Technical Data Sheet 970.10 or 970.13)
Permahyd® Hi-TEC 480 (ground coat)
(See Technical Data Sheet 480)

SPRAYGUN SETUP
HVLP  1.3-1.4mm
Approved Transfer Efficiency  1.2-1.3mm

Please refer to gun manufacturer and local legislation for proper spray pressure recommendations.

APPLICATION

• 1-3 coats as needed for color match with 2-5 minutes intermediate flash-off between coats if more than 1 coat is required.

2K Tinted Midcoat Repair Process with Permacron® Base Coat Series 293/295

1. Check color:
   Create a let-down panel to establish
   # of coats of tinted midcoat needed for color match.

2. Base coat application:
   Mask the blend panel to protect
   blend area from overspray (optional).
   Apply Permacron® Base Coat
   Series 293/295.

For flash-off times, please refer to the Permacron® Base Coat Series 293/295 TDS.
3. Blending the base coat:

Remove the masking paper if used.
Blend the base coat normally.
(Refer to Permacron® Base Coat Series 293/295 TDS)
Pay close attention to overspray drift.

4. Blending the tinted midcoat:
(see common step 4 below)

OR

2K Tinted Midcoat Repair Process with Permahyd® Hi-TEC 480

1. Check color:

Create a let-down panel to establish # of coats of tinted midcoat needed for color match.

2. Base coat application:

Mask the blend panel to protect blend area from overspray.
Apply Permahyd® Hi-TEC 480.

Apply base coat.
1.5 coats

For flash-off times, please refer to the Permahyd® Hi-TEC 480 TDS.

3. Blending the basecoat:

Remove the masking paper.
Apply Permahyd® Blending Additive 1050 or 1051. Do not allow to flash.
Blend Permahyd® Hi-TEC 480 into adjacent panel, spraying with reduced pressure (minimum 20-24 psi). Pay close attention to avoid overspray drift. Use outside in blend technique.

4. Blending the tinted midcoat:
(see common step 4 below)

4. Blending the tinted midcoat:
Recoat the base coat with a single coat of tinted midcoat and verify color match. Apply additional coat(s) of tinted midcoat with minimal flash (2 – 5 minutes between coats), as needed to achieve color match (generally only 2 coats are required).

Important Note: The tinted midcoat should not be applied over the entire blend panel or a darker color will result at the end of the panel.

Stagger tinted midcoat with each new application for best results.

For flash-off times, please refer to the Permahyd® Hi-TEC 480 TDS.
5. Blending the clear coat:

Apply a single application of Permasolid® Low VOC Clear Coat 8096 (untinted) or Permasolid® HS Clear Coat 8035 from outside in.

Blend the Permasolid® Low VOC Clear Coat 8096 or Permasolid® HS Clear Coat 8035 wet-on-wet into the tinted midcoat.

6. After bake, allow panel(s) to cool completely.

A careful intermediate sanding with P1000-P2000 is optional.

APPLICATION

7. Apply 1.5-2.0 coats of Permacron® or Permasolid® clear coat.

DRY TIMES

Please refer to the TDS of the respective Permacron® or Permasolid® clear coat used for dry time recommendations.

PHYSICAL PROPERTIES

Coating Category: Color Coating (HS Hardeners)
Max. VOC (AP): 407 g/l; 3.4 lbs/gal
Max. VOC (LE): 467 g/l; 3.9 lbs/gal
Avg. Gallon Weight: 1041.0 g/l; 8.69 lbs/gal
Avg. Weight % Volatiles: 53.9%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 14.5%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 12.5%
Technical Data Sheet – 996.0

Theoretical Coverage: 670.3 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 335.2 sq. ft.

Coating Category: Color Coating (HS Hardeners, Elastic Additive)
Max. VOC (AP): 407 g/l; 3.4 lbs/gal
Max. VOC (LE): 467 g/l; 3.9 lbs/gal
Avg. Gallon Weight: 1042.9 g/l; 8.70 lbs/gal
Avg. Weight % Volatiles: 52.1%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 12.6%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 10.9%

Theoretical Coverage: 696.7 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 348.4 sq. ft.

Coating Category: Color Coating (VHS Hardeners)
Max. VOC (AP): 372 g/l; 3.1 lbs/gal
Max. VOC (LE): 431 g/l; 3.6 lbs/gal
Avg. Gallon Weight: 1046.5 g/l; 8.73 lbs/gal
Avg. Weight % Volatiles: 51.8%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 15.8%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 13.7%

Theoretical Coverage: 706.4 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 353.2 sq. ft.

Coating Category: Color Coating (VHS Hardeners, Elastic Additive)
Max. VOC (AP): 372 g/l; 3.1 lbs/gal
Max. VOC (LE): 431 g/l; 3.6 lbs/gal
Avg. Gallon Weight: 1048.8 g/l; 8.75 lbs/gal
Avg. Weight % Volatiles: 49.7%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 13.7%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 11.9%

Theoretical Coverage: 706.4 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 353.2 sq. ft.

Coating Category: Color Coating (Low VOC Hardeners)
Max. VOC (AP): 156 g/l; 1.3 lbs/gal
Max. VOC (LE): 240 g/l; 2.0 lbs/gal
Avg. Gallon Weight: 1140.1 g/l; 9.51 lbs/gal
Avg. Weight % Volatiles: 54.3%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 41.0%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 36.2%

Theoretical Coverage: 728.5 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 364.3 sq. ft.
Coating Category: Color Coating (Low VOC Hardeners, Elastic Additive)
Max. VOC (AP): 156 g/l; 1.3 lbs/gal
Max. VOC (LE): 240 g/l; 2.0 lbs/gal
Avg. Gallon Weight: 1142.1 g/l; 9.53 lbs/gal
Avg. Weight % Volatiles: 52.4%
Avg. Weight % Water: 0.0%
Avg. Weight % Exempt Solvent: 38.9%
Avg. Volume % Water: 0.0%
Avg. Volume % Exempt Solvent: 34.4%

Theoretical Coverage: 757.8 sq. ft. @ 1 mil
Theoretical Coverage @ Recommended Film Build: 378.9 sq. ft.

VOC REGULATED AREAS
These directions refer to the use of products which may be restricted or require special mixing instructions in VOC regulated areas. Follow mixing usage and recommendations in the VOC Compliant Products Chart for your area.

SAFETY AND HANDLING
For industrial use only by professional, trained painters. Not for sale to or use by the general public. Before using, read and follow all label and MSDS precautions. If mixed with other components, mixture will have hazards of all components.

Ready to use paint materials containing isocyanates can cause irritation of the respiratory organs and hypersensitive reactions. Asthma sufferers, those with allergies and anyone with a history of respiratory complaints must not be asked to work with products containing isocyanates.

Do not sand, flame cut, braze or weld dry coating without a NIOSH approved air purifying respirator with particulate filters or appropriate ventilation, and gloves.

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